

Appln. Serial No. 10/849,752
Amendment Dated August 7, 2007
Reply to Office Action Mailed May 7, 2007

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REMARKS

In the Office Action dated May 7, 2007, claims 3-22 were rejected under 35 U.S.C. § 102 over U.S. Patent No. 5,856,967 (Mamin).

Withdrawn claims 1, 2, 23, and 24 have been cancelled, without prejudice to filing the claims in one or more divisional applications.

It is respectfully submitted that amended independent claim 3 is not anticipated by Mamin. Claim 3 now recites that a first storage cell containing a transition between the first structure and the second structure contains a data bit having a first state, a second storage cell including the *first* structure but not including a transition between the first structure and the second structure contains a data bit having a *second* state, and a third storage cell including the *second* structure but not including a transition between the first structure and the second structure contains a data bit having the *second* state.

Note that both the second and third storage cells contain respective data bits having the *second* state, even though the second storage cell includes the first structure, and the third storage cell includes the second structure. The storage device of claim 3 that is based on using a transition to store a data bit having a first state, and *lack of a transition* to store a data bit having a second state, is clearly different from Mamin, which discloses traditional storage of data bits in an AFM-based storage device, where a presence of a first structure (pit or bump) represents a first state, and where lack of the structure (pit or bump) represents a second state. As a result of the transition-based storage in the storage device of claim 3, the second storage cell having the first structure and the third storage cell having the second structure *both* store data bits having the same state (second state). In contrast, Mamin uses the lack or presence of a particular structure (pit or bump) to indicate data states.

Therefore, claim 3 is clearly not anticipated by Mamin.

Independent claim 9 has been amended to incorporate former dependent claim 12 and intervening claims 10 and 11. In the rejection of former claim 12, the Office Action stated that the "claimed cells are merely the recording layer where data is recorded or not recorded." 5/7/2007 Office Action at 3. The Office Action goes on to state that Mamin discloses the use of a recording layer (cells) 210. *Id.*

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The Office Action appears to have misunderstood the subject matter of former claim 12. Note that the subject matter of former claim 12 (as now incorporated into claim 9) recites that each of the third and fourth storage cells stores a respective data bit having the *second* storage state, even though the third storage cell contains a portion of a trench without presence of the storage surface, and the fourth storage cell contains a portion of the storage surface away from the trench. This feature is clearly not disclosed by Mamin.

Amended independent claim 19 is also allowable over Mamin for similar reasons as claim 3.

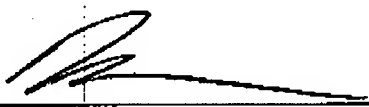
Dependent claims, including newly added dependent claims 25-27, are allowable for at least the same reasons as corresponding independent claims.

Allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 08-2025 (200312960-1).

Respectfully submitted,

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